Tennessee Pollution Prevention Partnership Success Story

Lodge Manufacturing Company
P.O. Box 380
South Pittsburg, TN 37380
423-837-7180
www.lodgemfg.com

Biodiesel

The Member

Over the past 100 years, Lodge has made many changes in equipment and procedures. However, throughout four generations of family management, our commitment to people, quality, and product innovation has never changed. Because of the family tradition of reinvestment, Lodge is not only the sole domestic cast iron cookware foundry; it is America's oldest family-owned full-line manufacturer. Come and visit our small, scenic city - perhaps during the Annual National Cornbread Festival on the last weekend of April. See why Lodge is "Over 100 Years and Still Cooking!"

The Story

Our first introduction to biodiesel was during a TP3 Meeting from a presentation by Mr. Jonathan Overly, Executive Director of the East Tennessee Clean Fuels Coalition. A Biodiesel Workshop presented by the Coalition and sponsored by Benton Oil in Chattanooga was later held in September of 2005. This meeting was attended by Lodge representatives as well as other industries from the local area.

With the information gathered from the workshop and presentation, Lodge began researching the possibility of converting to a Biodiesel product to replace the existing diesel fuel used. In November, 2005, the first delivery of 5% Biodiesel fuel was made. No problems were encountered relating to the product, other than filters had to be changed due to the carbon cleaning ability of the biodiesel products. The amount of biodiesel was gradually increased as the program progressed reaching 90% before cutting back for the winter months.

Lodge currently runs several pieces of equipment that include a track hoe with generator, three front end loaders, two bobcat loaders, three forklifts, one sweeper, one generator, and a steam cleaner.

The driving force for the change is the uncertainty of imported oil, the use of a renewable energy source produced in the U.S. and the environmental benefits of burning a much cleaner fuel.

The Pollution Prevented

Biodiesel reduces ozone forming potential and also reduces emissions of sulfur, carbon monoxide, particulate matter, and hydrocarbons when compared to diesel. From the start of the program we averaged 450 gallons a month of Biodiesel.

Biodiesel Emission Table

Emissions	B20	B100
Unburned Hydrocarbons	-21%	-67%
Particulate Matter	-10%	-48%
CO_2	-16%	-78%
NOx	+ 2%	+10%
Carbon Monoxide	-11%	-48%
Cancer Risk	-20%	-80,90%
Ozone Formation	-10%	-50%

Source: National Renewable Energy Laboratory(www.nrei.gov) a division of the U.S. Dept. of Energy

Submitted October 19, 2006